

MAR 29 2007

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REMARKS

Claims 1-26 and 28 are pending in this application. Claims 1-26 and 28 are rejected. No new matter has been added. It is respectfully submitted that the pending claims define allowable subject matter.

Applicant acknowledges with appreciation the allowance of claim 19.

Claims 1, 2, 4, 5, 7, 15-18 and 20-22 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Yonezawa et al. (U.S. Patent Application Publication 2003/0211827), hereafter Yonezawa, in view of Carter (U.S. Patent Application Publication 2003/0146835) and further in view of Yarkosky (U.S. Patent 6,895,218). Applicant respectfully traverses this rejection.

Yonezawa and Yarkosky are described and discussed in Applicant's response filed on November 13, 2006. The Office has now included the Carter reference in this Section 103 rejection. Carter is directed to an object location monitoring system within buildings that includes a plurality of beacons 32 affixed to walls or other stationary structures. The beacons 32 transmit periodic identification signals that are received by transceivers 30. Each beacon 32 intermittently transmits at a fixed or predefined RF power level. The transceivers 30 also measure the received signal strength of the transmission (Carter, page 3, paragraph 0028). Retransmission of signals is also performed in which a received signal strength indicator (RSSI), which is based on the measured received signal strength, is included in the retransmitted signals. The transceiver 30 then may select one or more beacons for retransmission based on the RSSI values for the beacons 32 (Carter, page 3, paragraphs 0034 and 0035).

In contrast, the present invention as recited in claim 1 includes a communication system comprising "the second communication module disposed on a building and adapted to receive the second type of communication signal from the first communication module, and transmit the second type of communication signal inside the building to a third communication module at a power level based on a signal-to-interference level." Thus, the transmission power level is based on a signal-to-interference level. The Office relies on paragraph 0028 for allegedly disclosing this feature (See Office Action, page 4).

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Applicant respectfully submits that Carter does not describe or suggest transmitting "the second type of communication signal inside the building to a third communication module at a power level based on a signal-to-interference level." Rather, Carter describes using a received signal strength indicator to determine which of a plurality of beacons to use to retransmit a signal. The strength of the received signal in the system of Carter is used to determine which beacons to use. Using received signal strength to select beacons for retransmission of signals is not the same as transmitting "at a power level based on a signal-to-interference level." The power level of the beacons is not changed based on any signal-to-interference level, but instead, beacons having the highest received signal strength values are selected for retransmitting signals. Accordingly, Applicant submits that the combination of Yonezawa with Carter and Yarkosky does not describe or suggest a system as recited in independent claim 1.

Claims 2, 4, 5, 7, 15-18 and 20-22 depend from independent claim 1. When the recitations of claims 2, 4, 5, 7, 15-18 and 20-22 are considered in combination with the recitations of claim 1, Applicant submits that dependent claims 2, 4, 5, 7, 15-18 and 20-22 are likewise patentable over the combination of Yonezawa with Carter and Yarkosky for at least the same reasons set forth above.

Claims 3 and 12 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Yonezawa et al. in view of Carter and Yarkosky and further in view of Iwata et al. (U.S. Patent Application Publication 2004/0137842 A1). Applicant respectfully traverses this rejection.

Claims 3 and 12 depend from independent claim 1 and are allowable based at least on the dependency of these claims from claim 1. Further, even from a cursory reading of the Iwata et al. reference, this reference fails to make up for the deficiencies of the Yonezawa et al, Carter and Yarkosky references as discussed in more detail above.

Claim 6 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Yonezawa et al. in view of Carter and Yarkosky and further in view of Takatori et al. (U.S. Patent 6,421,027 B1). Applicant respectfully traverses this rejection.

Claim 6 depends from independent claim 1 and is allowable based at least on the dependency of this claim from claim 1. Further, even from a cursory reading of the Takatori et

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al. reference, this reference fails to make up for the deficiencies of the Yonezawa et al, Carter and Yarkosky references as discussed in more detail above.

Claims 8 and 9 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Yonezawa et al. in view of Carter and Yarkosky and further in view of Judd et al. (U.S. Patent Application Publication 2002/0177401). Applicant respectfully traverses this rejection.

Claims 8 and 9 depend from independent claim 1 and are allowable based at least on the dependency of these claims from claim 1. Further, even from a cursory reading of the Judd et al. reference, this reference fails to make up for the deficiencies of the Yonezawa et al, Carter and Yarkosky references as discussed in more detail above.

Claims 10, 11 and 14 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Yonezawa et al. in view of Carter and Yarkosky and further in view of Masoian (U.S. Patent Application Publication 2001/0031623). Applicant respectfully traverses this rejection.

Claims 10, 11 and 14 depend from independent claim 1 and are allowable based at least on the dependency of these claims from claim 1. Further, even from a cursory reading of the Masoian reference, this reference fails to make up for the deficiencies of the Yonezawa et al, Carter and Yarkosky references as discussed in more detail above.

Claim 13 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Yonezawa et al. in view of Carter and Yarkosky and further in view of Iwata et al. and Haemmig et al. (U.S. Patent 3,876,980). Applicant respectfully traverses this rejection.

Claim 13 depends from independent claim 1 and is allowable based at least on the dependency of this claim from claim 1. Further, even from a cursory reading of the Iwata et al. and Haemmig et al. references, these references fail to make up for the deficiencies of the Yonezawa et al, Carter and Yarkosky references as discussed in more detail above.

Claim 23 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over O'Neill (U.S. Patent Application Publication 2004/0176027) in view of Yarkosky. Applicant respectfully traverses this rejection.

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Claim 23, as amended, recites an apparatus comprising “a communication module mountable to the side of a building” and the communication module is configured to “receive a radio signal from another communication module located on the side of the building, the radio signal originating from an elevation different than the communication module and propagated at least one of substantially upward and substantially downward along an outside surface of the building” and “transmit the radio signal into the building.” The combination of O’Neill and Yarkosky fails to describe or suggest an apparatus as recited in claim 23.

As discussed previously, O’Neill describes a repeater system for use in communications, such as, cellular system communications, that may be located in a high-rise building in the interior of an external room in the building, preferably near a window (see, e.g., O’Neill abstract and Figure 2). Yarkosky as shown in Figure 5 describes a propagation relay (including an antenna) attached to a building that provides communication between a base station and a plurality of mobile station interface ports within the building or other structure (column 6, lines 6-29). These systems operate to receive a signal from a single receiver or antenna outside a building (e.g., outside a window) and transmit the signal inside the building. Neither reference describes or suggests transmitting a radio signal “at least one of substantially upward and substantially downward along an outside surface of the building” from one communication module to another. Retransmissions in the cited art are within the building, not outside the building. Accordingly, Applicant submits that the combination of O’Neill and Yarkosky does not describe or suggest an apparatus as recited in independent claim 23.

Claim 24 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over O’Neill in view of Yarkosky and further in view of Takatori. Applicant respectfully traverses this rejection.

Claim 24 depends from independent claim 23 and is allowable based at least on the dependency of this claim from claim 23. Further, even from a cursory reading of the Takatori reference, this reference fails to make up for the deficiencies of the O’Neill and Yarkosky references as discussed in more detail above.

Claim 25 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over O’Neill in view of Carter. Applicant respectfully traverses this rejection.

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O'Neill is described and discussed in more detail above and in Applicant's previous response filed on November 13, 2006. The Office has now included the Carter reference in this Section 103 rejection. Carter is also described and discussed in more detail above.

Claim 25 recites a method comprising "receiving a radio signal at a communication module, wherein the communication module is mounted to the side of a building, wherein the radio signal originated from an elevation different than the communication module and the signal is encoded with an indication of the elevation from which the signal was transmitted." The Office relies on paragraphs 0002, 0004-0006, 0048 and 0049 for allegedly disclosing this feature (See Office Action page 14).

Applicant respectfully submits that Carter does not describe or suggest encoding a signal "with an indication of the elevation from which the signal was transmitted." Rather, Carter describes using signal strengths to determine a distance of an object (that includes an RF tag) from a receiver (see, e.g., Carter, paragraph 0049). The relative strength levels of the signals are used in the system of Carter to determine a location of the object. The signal strengths of the received beacon signals depend on the location of the transceiver in the structure. However, the signals are not encoded with any information about the location of the objects. Rather, the signal strength is used to determine the location of object. Using signal strength to determine a distance of an object to identify the location of the object (e.g., the room in which the object is located) is not the same as receiving a radio signal "encoded with an indication of the elevation from which the signal was transmitted." There is simply no encoding of elevation information in the signals of the system of Carter. Moreover, the system of Carter can only determine relative distance and not elevation. It is not possible for the system of Carter to distinguish signals that originate from locations higher or lower than the receiver. Accordingly, Applicant submits that the combination of O'Neill and Carter does not describe or suggest a method as recited in independent claim 25.

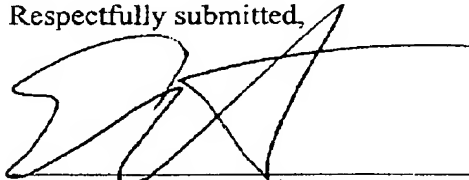
Claims 26 and 28 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over O'Neill and Carter in view of Yarkosky and Takatori. Applicant respectfully traverses this rejection.

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Claims 26 and 28 depend from independent claim 25 and are allowable based at least on the dependency of these claims from claim 25. Further, even from a cursory reading of the Yarkosky and Takatori references, these references fail to make up for the deficiencies of the O'Neill and Carter references as discussed in more detail above.

In view of the foregoing amendments and remarks, it is respectfully submitted that the prior art fails to teach or suggest the claimed invention and all of the pending claims in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited. Should anything remain in order to place the present application in condition for allowance, the Examiner is kindly invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,



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